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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,415	09/20/2001	Karl Hermann	306.38504X00	4840

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Antonelli Terry Stout & Kraus
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Arlington, VA 22209

EXAMINER

KOPEC, MARK T

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/530,415	Applicant(s) HERRMANN ET AL.	
	Examiner Mark Kopec	Art Unit 1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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This action is responsive to applicant's amendment/remarks filed 3/24/04. Claims 1, 3-12 and 15-19 are currently pending.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-12 and 15-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The examiner fails to find direct support for the claimed terminology "...the conductive additives not having a modifying agent coating thereon". Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd mem.*, 738 F.2d 453 (Fed. Cir. 1984). The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original

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disclosure should be rejected under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement.

The use of several trademarks (inventive examples) has been noted in this application. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

The prior art rejection over Hennemann et al (6,409,815) is withdrawn in view of applicant's amendments and remarks. Note the "new matter" rejection above. The rejection may be reinstated if the claims are amended to remove the limitation "...the conductive additives not having a modifying agent coating thereon".

The prior art rejection over Takahashi et al (5,071,593) is withdrawn in view of applicant's amendments and remarks.

The prior art rejection over Saitoh et al (5,037,581) is withdrawn in view of applicant's amendments and remarks. The reference does not disclose or suggest the instantly claimed conductive filler(s).

Note the following new grounds of rejection:

Claims 1, 3-12 and 15-19 are rejected under 35

U.S.C. 102(b) as anticipated by or, in the alternative, under 35

U.S.C. 103(a) as obvious over either Stahlecker et al

(5,320,781) or Dietz et al (5,350,448).

Stahlecker et al discloses an electrically conductive pigment containing 20 to 95% by weight of a component A comprising one or more conductive platelet-like pigments and 5 to 80% by weight of a component B comprising one or more conductive needle-shaped or fibrous pigments (Abstract). The invention furthermore relates to lacquers, printing inks, plastics or coatings pigmented with the pigment according to the invention. The amount of pigment is 1 to 80% by weight, preferably more than 2% by weight, relative to the total solids content of the system used. Platelet-like conductive pigments of component A are pigments based on platelet-like base materials such as mica, kaolin, talc, other sheet silicates or glass platelets provided with a conductive coating (Col 2, lines 3-12). The preferred base material is mica flakes coated with metal oxides, such as disclosed, for example, in U.S. Pat. No. 3,087,828 and U.S. Pat. No. 3,087,829. The metal oxides used are not only colorless highly refractive metal oxides such as, in particular, titanium oxide and/or zirconium dioxide but also

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colored metal oxides such as, for example, chromium oxide, nickel oxide, copper oxide, cobalt oxide and, in particular, iron oxides such as, for example, Fe.sub.2 O.sub.3 or Fe.sub.3 O.sub.4 or mixtures of such metal oxides. Metal oxide/mica pigments of this type are commercially available under the trade names Afflair.RTM. and Iriodin.RTM. (product of E. Merck, Darmstadt). In addition, suitable platelet-like substrates are also platelet-like iron oxides such as, for example, disclosed in EP-A 14, 382 (corresponding to U.S. Pat. No. 4,404,254) EP-A 68,311, EP-A 265,820 (corresponding to U.S. Pat. No. 4,826,537) EP-A 268,072 (corresponding to U.S. Pat. No. 4,780,140) , and EP-A 283,852.2. The conducting component of the pigment comprises one or more metal oxides, metals or other inherently conducting compounds, for example polyacetylene. Systems which are suitable as the conductive layer are, in particular, antimony-doped tin oxide, aluminium-doped zinc oxide or fluorine-doped tin oxide or fluorine-doped titanium oxide (Col 2, line 45 to Col 3, line 2). The concentration of the pigment in the system to be pigmented, for example in a lacquer, is between 1 and 80% by weight, preferably more than 2% by weight, relative to the total solids content of the system (Col 4, lines 20-25). The conductivity of individual pigment preparations was tested using an acrylic melamine resin lacquer system. The

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individual pigment preparations-were prepared by mixing the platelet-shaped pigment Minatec.RTM. CM 30 (component A) with one each of the non-platelet-shaped pigments Sacon.RTM. p 401, Tego-Conduct S and Zelec.RTM. ECP-S, and the mixture was incorporated in the lacquer system. The lacquer obtained was spray-coated onto a test panel and dried. The surface resistance was then measured by DIN 53596 using a flexible-tongue electrode (Col 5, lines 5-15).

Dietz et al (5,350,448) discloses light-colored, electrically conductive pigments based on substrates having an expansion of not more than 500 .mu.m, which pigments consist of one or more metals, metal oxides or materials containing metal oxide, silicon oxide or silicate materials and contain, if desired above one or more other metal oxide and/or silicon oxide layers, an outer layer based on halogen-doped tin oxide and/or titanium oxide (Abstract). This object is achieved by a light-colored, electrically conductive pigment based on a substrate optionally coated with one or more metal oxide layers and containing halide-doped tin oxide and/or titanium oxide as conductive layer. The invention also provides lacquers, printing inks, plastics or coatings which have been pigmented with the pigment of the invention. The substrates can be platelet-like or else non-platelet-like. In the latter case,

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they are particles having an irregular or regular, for example more or less spherical, shape and an average diameter of less than 500 μm and in particular not more than 200 μm .

Platelet-like substrates, which are preferred, have in the main dimension an extension of less than 500 and in particular less than 250 μm and a thickness of preferably less than 10, in particular not more than 5 and particularly preferably 0.1-3

μm . The ratio of the extension in the main dimension to the thickness (aspect ratio) of the platelet-like substrates is more than 3 and preferably more than 5. The non-platelet-like

substrates can be composed, for example, of SiO_2 or metal oxides, such as, for example, Fe_2O_3 , TiO_2 ,

MTiO_3 in which M is Mg, Ca, Ba, Sr, or Al_2O_3 and furthermore also of BaSO_4 , CaSO_4 and CaCO_3 . The platelet-like substrates are based on platelet-like and

preferably transparent or semi-transparent substrates consisting of, for example, sheet silicates, such as mica, talc, kaolin, of glass or other silicate minerals. In addition, metal platelets, such as, for example, aluminium platelets or platelet-like metal oxides, such as, for example, platelet-like iron oxide or

bismuth oxychloride are also suitable, this enumeration as well as that of materials for non-platelet-like substrates being

merely understood as exemplary and not as limiting the invention

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(Col 2, lines 21-51). These conductive pigments are particularly suitable for producing electrically conductive clearcoats or transparent electrode layers (Col 3, lines 36-38). Furthermore, in addition to $\text{SnO}_{2-x}\text{X}_x$ and/or $\text{TiO}_{2-x}\text{X}_x$, the outer layer can also contain other metal oxides. Thus, for example, it may be advantageous to add other metal oxides to the outer layer, such as, for example, alumina, iron oxide, zirconium oxide, chromium oxide or further oxides, in order to increase the heat or mechanical stability, in order to produce special color effects or for other reasons (Col 6, lines 40-45).

The references either specifically or inherently meet each of the claimed limitations.

In the event that any minor modifications are necessary to meet the claimed limitations, such as minor variation in percentages or selection of particular particle sizes, such modifications are well within the purview of the skilled artisan.

In view of the foregoing, the above claims have failed to patentably distinguish over the applied art.

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative

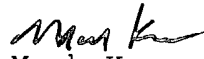
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to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Kopec whose telephone number is (571) 272-1319. The examiner can normally be reached on Monday - Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mark Kopec
Primary Examiner
Art Unit 1751

MK
July 30, 2004